U.S. DEPARTMENT OF ENERGY

# Center for Inverse Design
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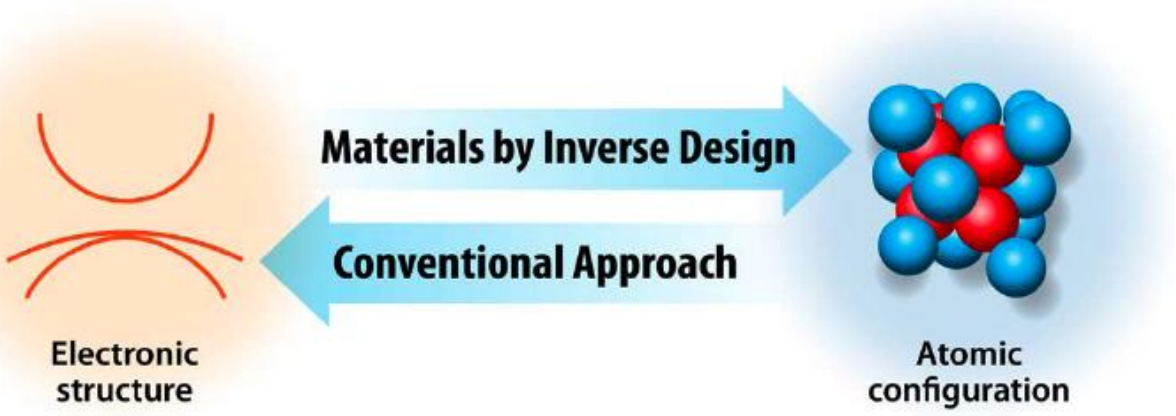
## Summary statement:

We will focus on material discovery via an "Inverse Band Structure" (IBS) methodology to theoretically identify promising structures and compositions and then apply a combination of high-throughput and targeted materials synthesis to experimentally converge on the optimum properties.




## RESEARCH PLAN AND DIRECTIONS

Rather than use the conventional approach "given the structure, find the electronic properties" this center will address the Materials by Inverse design :" given the desired property ,find the structure" .Target properties include new semiconductor absorbers , transparent conductors and nanostructures for energy sustainability .Predictions will be iteratively examined by various synthetic approaches including high -throughput parallel materials science .